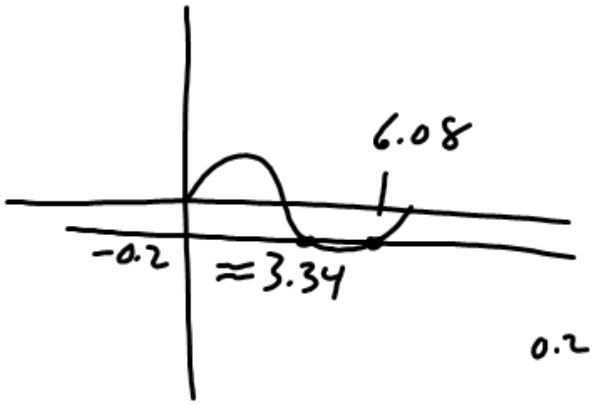
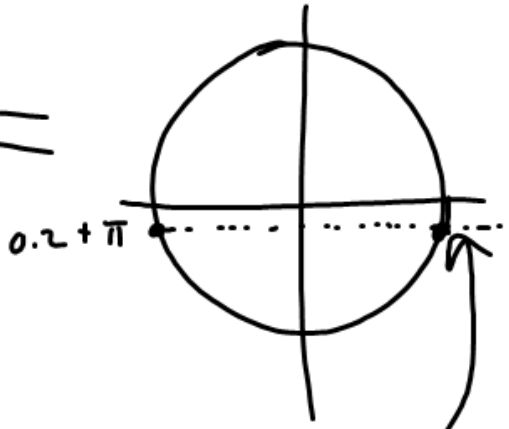
$\sin x = -0.2$

$0 \le x \le 2\pi$

≈ 6.08

back of book





$\pi - \sin^{-1}(-0.2) \approx 3.34$

$\sin x = -0.2$

$x = \sin^{-1}(-0.2)$

$x \approx -0.2 + 2\pi \approx 6.08$

$-\infty \le x \le \infty$

$3.34 + n2\pi$

$6.08 + n2\pi$, n is an integer

K

(69)

$f(x) = 1 - \ln(x-2)$

(a) $2 < x$

(b) All $\mathbb{R}$

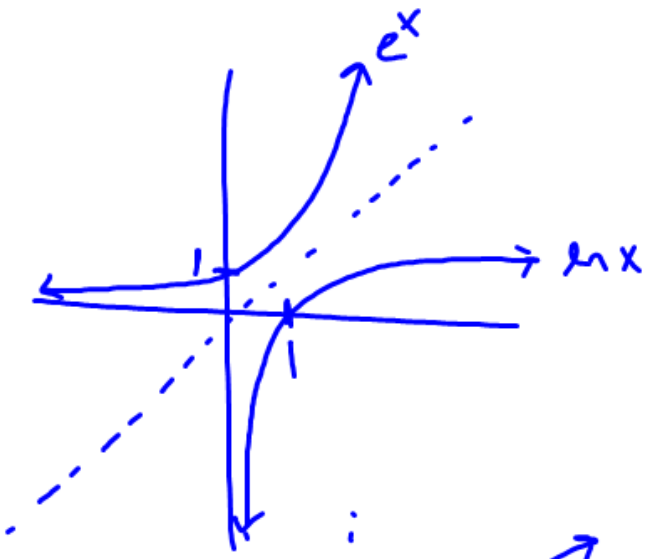
(c) $0 = 1 - \ln(x-2)$

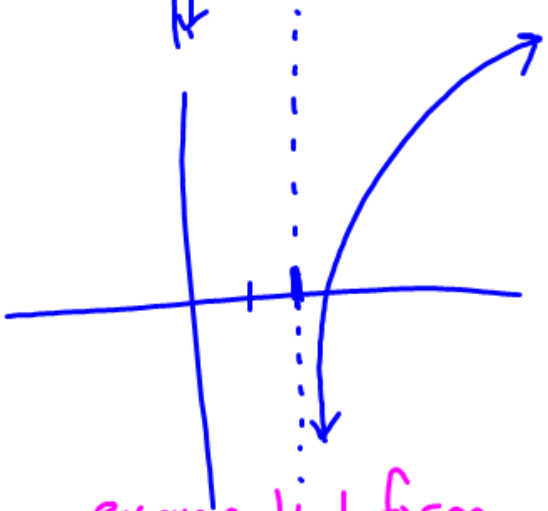
$\ln(x-2) = 1$

$e^{\ln(x-2)} = e^1$

$x - 2 = e$

$x = e + 2 \approx 4.71$





$\ln_e(x-2) = 1$

$e^1 = x - 2$

$7^x = 12$ - exponential form

$\frac{\log 12}{\log 7} = x$ → Ans

$12 = x$ → log. form

$\log_7$

(69)

$y = 1 - \ln(x-2)$

$x = 1 - \ln(y-2)$

$\ln(y-2) = 1-x$

$e^{\ln(y-2)} = e^{1-x}$

$y - 2 = e^{1-x}$

$y = e^{1-x} + 2$

$f \circ f^{-1}(x) = x$

$f^{-1} \circ f(x) = x$

70c

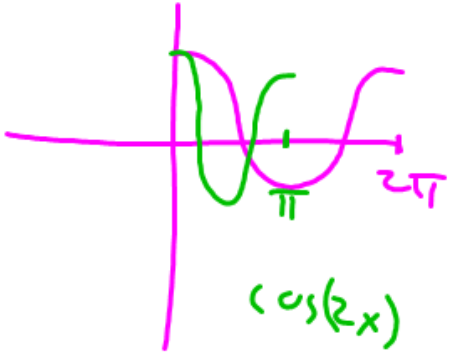
flip over x-axis

$f(x) = 1 - 3\cos(2x)$

up 1

stretch vert 3

compress by 2 horz.

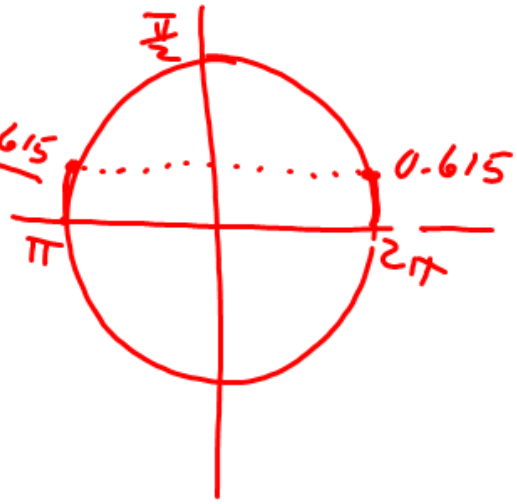


π = Period

✓ 2.51

$\pi - 0.615$

$0.615 + \pi = 3.75$ ✓



70e

$f(x) = 1 - 3\cos(2x)$

$0 = 1 - 3\cos(2x)$

$\frac{3\cos(2x)}{3} = \frac{1}{3}$

$\cos(2x) = \frac{1}{3}$

$2x = \cos^{-1}\left(\frac{1}{3}\right)$

$x = \frac{\cos^{-1}\left(\frac{1}{3}\right)}{2}$

≈ 0.615

Domain

$\sqrt{\text{neg}}$ $x \leq$ $x \geq$

± 0 $x \neq$ —, —

All $\mathbb{R}$,

$\frac{3}{2x-1}$

$2x-1=0$ $x \neq \frac{1}{2}$

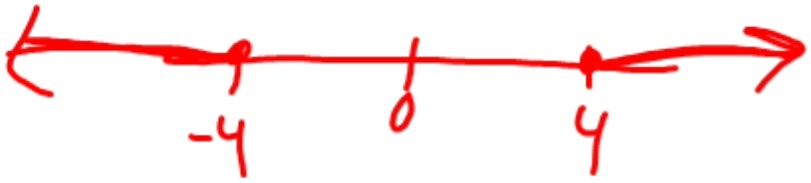
$\sqrt{x^2-16}$

$x^2-16 \geq 0$

$\sqrt{x^2} \geq \sqrt{16}$

$x = \pm 4$

range $[0, \infty)$



Sect. 1.1 #2, 40, 41, 45, 57

Sect. 1.2 #1, 3, 4, 6 Quick Review, 20, 55

check ans.

increments

Δx

↓

delta

change in x

$x_2 - x_1$

Δy

$y_2 - y_1$

$$\frac{x}{c} + \frac{y}{d} = 1$$

$$\frac{x}{c} + \frac{y}{d} = 1$$

$$\frac{x}{c} = \frac{c}{c}$$

$$x = c$$

Read

1.3 & 1.5 & 1.6

try some problems